

ABSTRACT OF THE DISCLOSURE

An integrated convective accelerometer device. The device includes a thermal acceleration sensor having a thermopile and a heater element; control circuitry for providing closed-loop control of the thermopile common-mode voltage; an instrumentation amplifier; clock generation circuitry; voltage reference circuitry; a temperature sensor; and, output amplifiers. The device can be operated in an absolute or ratiometric mode. Further, the device is formed in a silicon substrate using standard semiconductor processes and is packaged in a standard integrated circuit package.

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